

RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.

Application Serial Number: 10/524,648

Source: P47/10

Processed by STIC: 2/26/05

ENTERED



PCT

RAW SEQUENCE LISTING

DATE: 02/26/2005

PATENT APPLICATION: US/10/524,648

TIME: 10:53:48

Input Set : A:\Sequence Listing - Docket No 13173-00002 US.txt

Output Set: N:\CRF4\02262005\J524648.raw

in

```

3 <110> APPLICANT: Schopfer, Christel
4      Sauer, Matt
5      Klebsattel, Martin
6      Flachmann, Ralf
8 <120> TITLE OF INVENTION: Transgenic expression cassettes for expressing nucleic acids
in
9      the flower of plants
11 <130> FILE REFERENCE: 13173-00002-US
C--> 13 <140> CURRENT APPLICATION NUMBER: US/10/524,648
C--> 13 <141> CURRENT FILING DATE: 2005-02-17
13 <150> PRIOR APPLICATION NUMBER: PCT/EP 03/008394
14 <151> PRIOR FILING DATE: 2003-07-30
16 <150> PRIOR APPLICATION NUMBER: DE 102 38 979.9
17 <151> PRIOR FILING DATE: 2002-08-20
19 <150> PRIOR APPLICATION NUMBER: DE 102 47 599.7
20 <151> PRIOR FILING DATE: 2002-02-11
22 <160> NUMBER OF SEQ ID NOS: 83
24 <170> SOFTWARE: PatentIn version 3.3
27 <210> SEQ ID NO: 1
28 <211> LENGTH: 312
29 <212> TYPE: DNA
30 <213> ORGANISM: Tagetes erecta
32 <220> FEATURE:
33 <221> NAME/KEY: promoter
34 <222> LOCATION: (1)..(312)
37 <400> SEQUENCE: 1
38 cgatagtaaa atcgtagtt atgattaata cttgggaggt gggggattat aggctttgtt 60
39 gtgagaatgt tgagaaagag gtttgacaaa tcggtgtttg aatgaggtta aatggagttt 120
40 aattaaaata aagagaagag aaagattaag aggggtgatgg ggatattaaa gacggscaat 180
41 atagtgatgc cacgtagaaa aaggtaagtg aaaacataca acgtggcttt aaaagatggc 240
42 ttggctgcta atcaactcaa ctcaactcat atcctatcca ttcaaattca attcaattct 300
43 attgaatgca aa                                     312
46 <210> SEQ ID NO: 2
47 <211> LENGTH: 447
48 <212> TYPE: DNA
49 <213> ORGANISM: Tagetes erecta
51 <220> FEATURE:
52 <221> NAME/KEY: promoter
53 <222> LOCATION: (1)..(312)
55 <220> FEATURE:
56 <221> NAME/KEY: 5'UTR
57 <222> LOCATION: (313)..(444)
59 <220> FEATURE:
60 <221> NAME/KEY: misc_feature

```

p.6

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61 <222> LOCATION: (445)..(447)
62 <223> OTHER INFORMATION: ATG-start codon
63 <400> SEQUENCE: 2
64 cgatagtaaa atcgtagtt atgattaata cttgggaggt gggggattat aggctttgtt 60
65 gtgagaatgt tgagaaagag gtttgacaaa tcggtgtttg aatgagggtta aatggagttt 120
66 aattaaaaata aagagaagag aaagattaag aggggtgatgg ggatattaaa gacggscaat 180
67 atagtgatgc cacgtagaaa aaggtaagtg aaaacataca acgtggcttt aaaagatggc 240
68 ttggctgcta atcaactcaa ctcaactcat atcctatcca ttcaaattca attcaattct 300
69 attgaatgca aagcaaagca aaggttgttt gttgtgttg ttgagagaca ctccaatcca 360
70 aacagataca aggcgtgact ggatatttct ctctcgttcc taacaacagc aacgaagaag 420
71 aaaaagaatc attactaaca atcaatg                                     447
72 <210> SEQ ID NO: 3
73 <211> LENGTH: 537
74 <212> TYPE: DNA
75 <213> ORGANISM: Tagetes erecta
76 <220> FEATURE:
77 <221> NAME/KEY: promoter
78 <222> LOCATION: (1)..(312)
79 <220> FEATURE:
80 <221> NAME/KEY: 5'UTR
81 <222> LOCATION: (313)..(444)
82 <220> FEATURE:
83 <221> NAME/KEY: sig_peptide
84 <222> LOCATION: (445)..(537)
85 <220> FEATURE:
86 <221> NAME/KEY: CDS
87 <222> LOCATION: (445)..(537)
88 <223> OTHER INFORMATION: coding for transit peptide of epsilon cyclase
89 <400> SEQUENCE: 3
90 cgatagtaaa atcgtagtt atgattaata cttgggaggt gggggattat aggctttgtt 60
91 gtgagaatgt tgagaaagag gtttgacaaa tcggtgtttg aatgagggtta aatggagttt 120
92 aattaaaaata aagagaagag aaagattaag aggggtgatgg ggatattaaa gacggscaat 180
93 atagtgatgc cacgtagaaa aaggtaagtg aaaacataca acgtggcttt aaaagatggc 240
94 ttggctgcta atcaactcaa ctcaactcat atcctatcca ttcaaattca attcaattct 300
95 attgaatgca aagcaaagca aaggttgttt gttgtgttg ttgagagaca ctccaatcca 360
96 aacagataca aggcgtgact ggatatttct ctctcgttcc taacaacagc aacgaagaag 420
97 aaaaagaatc attactaaca atca atg agt atg aga gct gga cac atg acg 471
98                                     Met Ser Met Arg Ala Gly His Met Thr
99                                     1           5
100 gca aca atg gcg gct ttt aca tgc cct agg ttt atg act agc atc aga 519
101 Ala Thr Met Ala Ala Phe Thr Cys Pro Arg Phe Met Thr Ser Ile Arg
102 10           15           20           25
103 tac acg aag caa att aag                                     537
104 Tyr Thr Lys Gln Ile Lys
105                                     30
106 <210> SEQ ID NO: 4
107 <211> LENGTH: 31
108 <212> TYPE: PRT
109 <213> ORGANISM: Tagetes erecta

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124 <400> SEQUENCE: 4
125 Met Ser Met Arg Ala Gly His Met Thr Ala Thr Met Ala Ala Phe Thr
126   1               5               10               15
127 Cys Pro Arg Phe Met Thr Ser Ile Arg Tyr Thr Lys Gln Ile Lys
128   20               25               30
131 <210> SEQ ID NO: 5
132 <211> LENGTH: 456
133 <212> TYPE: DNA
134 <213> ORGANISM: Tagetes erecta
136 <220> FEATURE:
137 <221> NAME/KEY: misc_feature
138 <222> LOCATION: (1)..(6)
139 <223> OTHER INFORMATION: restriction site
141 <220> FEATURE:
142 <221> NAME/KEY: misc_feature
143 <222> LOCATION: (451)..(456)
144 <223> OTHER INFORMATION: restriction site
146 <220> FEATURE:
147 <221> NAME/KEY: misc_feature
148 <222> LOCATION: (7)..(450)
149 <223> OTHER INFORMATION: coding for promoter and 5'-UTR region
152 <400> SEQUENCE: 5
153 ctcgagagta aaatcggttag ttatgattaa tacttgggag gtggggggatt ataggctttg 60
154 ttgtgagaat gttgagaaag aggtttgaca aatcgggtgtt tgaatgaggt taaatggagt 120
155 ttaattaaaa taaagagaag agaaaagatta agagggtgat ggggatatta aagacggsca 180
156 atatagtgat gccacgtaga aaaaggtaag tgaaaacata caacgtggct ttaaaagatg 240
157 gcttggctgc taatcaactc aactcaactc atatcctatc cattcaaatt caattcaatt 300
158 ctattgaatg caaagcaaag caaaggttgt ttgttgttgt tgttgagaga cactccaatc 360
159 caaacagata caaggcgtga ctggatatct ctctctcgtt cctaacaaca gcaacgaaga 420
160 agaaaaagaa tcattactaa caatcaatgg ccatgg                               456
163 <210> SEQ ID NO: 6
164 <211> LENGTH: 543
165 <212> TYPE: DNA
166 <213> ORGANISM: Tagetes erecta
168 <220> FEATURE:
169 <221> NAME/KEY: misc_feature
170 <222> LOCATION: (1)..(6)
171 <223> OTHER INFORMATION: restriction site
173 <220> FEATURE:
174 <221> NAME/KEY: misc_feature
175 <222> LOCATION: (538)..(543)
176 <223> OTHER INFORMATION: restriction site
178 <220> FEATURE:
179 <221> NAME/KEY: misc_feature
180 <222> LOCATION: (7)..(542)
181 <223> OTHER INFORMATION: coding for promoter - 5'-UTR - signal peptide
182   region
185 <400> SEQUENCE: 6
186 ctcgagagta aaatcggttag ttatgattaa tacttgggag gtggggggatt ataggctttg 60

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187 ttgtgagaat gttgagaaag aggtttgaca aatcgggtgtt tgaatgaggt taaatggagt 120
188 ttaattaaaa taaagagaag agaaagatta agaggggtgat ggggatatta aagacggsca 180
189 atatagtgat gccacgtaga aaaaggtaag tgaaaacata caacgtggct ttaaaagatg 240
190 gcttggctgc taatcaactc aactcaactc atatcctatc cattcaaatt caattcaatt 300
191 ctattgaatg caaagcaaag caaagggtgt ttgttgttgt tgttgagaga cactccaatc 360
192 caaacagata caaggcgtga ctggatattt ctctctcgtt cctaacaaca gcaacgaaga 420
193 agaaaaagaa tcattactaa caatcaatga gtatgagagc tggacacatg acggcaacaa 480
194 tggcggtttt tacatgccct aggtttatga ctagcatcag atacacgaag caaattacca 540
195 tgg 543

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198 <210> SEQ ID NO: 7

199 <211> LENGTH: 1008

200 <212> TYPE: DNA

201 <213> ORGANISM: Arabidopsis thaliana

204 <400> SEQUENCE: 7

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205 gaagatgtcg tggacagtta cctagtagaa agccctgaaa ctacgatgt cactgacttc 60
206 tgcagcttct acactctccc ttcaaccatc ctcggttaacc cgaactacac tacattgaaa 120
207 gctgcgtatt ctactacaa tgtggccaca cagacctcgt ttcttcagct gatgaatgat 180
208 gcgctaattg tctcaaagca aaagggtttc gatgtgttca acgcgttga tgtgatgcac 240
209 aatgagagtt tcttgaaaga actgaagttt gggccaggag atggacaact tcattactat 300
210 ctctacaatt accgtttgaa aagtgccttg aagccagcgg aactcgggct tgttctctta 360
211 taagctcaac aacttgattt gatggatca acaaaactga aatttgtctc tctttttttt 420
212 tcttcagtct gaactacttc tcccatgggt tactgaaact gagtttaatt attttggcaa 480
213 tgcaattttg gattttgctt ttagtttcac ttgtgttctc tgagagagtt gacctgaga 540
214 agtaaagtca acactagacg tgtgcgagtt tcaatggact gcatttttag gtccaagaag 600
215 tagctacggc ccatctatcg tagaagttgt tttttgtact aaagcctgt atagccgaac 660
216 taggtcgcta cgtttcttaa ctgtcggtt attaggctac ttttaaactc cacgcaccaa 720
217 tccagttctt acacgcgttt tcacaaaaag gaccttacat gggttgttcc cccaataaga 780
218 aaattacacg ttgcagaatc gaagcagtggt tctatccttg ttatcgctc ctgctcttta 840
219 tggctcttcc aagtcatttt gagaaaattt cgattttgag atttttttcc aaatattaca 900
220 aaaggaaata attagattcc tctttctgct tgctatacct tgatagaaca atataacaat 960
221 ggtgtaagtc ttctcgctgt attcgaaatt atttggagga ggaaaatg 1008

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224 <210> SEQ ID NO: 8

225 <211> LENGTH: 1169

226 <212> TYPE: DNA

227 <213> ORGANISM: Oryza sativa

230 <400> SEQUENCE: 8

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231 agaaggagag agagccggcc ggcgcgacgg cgggtggcagg agaggtggag agagcccgcc 60
232 gacgcgacgg cggcagtgga agaaaaggag aggaggcggc cggcgtgtc gaacgcgcac 120
233 gggaagcagc ggacgatgcc gagcaggaca atgtcctcct cgtcaccacc ttctcatcgc 180
234 tcgtcgcggg cgggtgggtgc cgggcgggag ggtttttgag ggaggggtcg gcggccggcg 240
235 agcccatccg agctcgctcg gcttgcgcga gcccgccctc gctgcagctt ggtgtgctgg 300
236 ggacgacgac gaggaaaggg ggagagagga atcaactacc gacgacagcg gaggcggggc 360
237 agcgcgggtg cgggctgctc acgctcgccg accaggccct cgctccgtca cactcgctcg 420
238 cctccgttcc acccgagcc cgcgcgcgtc cgttcgacag gctcgcccggt cgccgctccg 480
239 ctgctgtgca gtcccgcgc cgcgctcgcc ctgactgaag aagaaaagag agaagagaga 540
240 aaagagaagg gaaggagaag aaaatagaag aaaaaaatat gtgcagctga tgtatgagcc 600
241 ccacatactc ttttttaatc ttttttgctg actacgatgc cacgtcagcg aaaccacct 660
242 tatatactac cataggatct tgagtgcacg gtttatatga gtttaggagt atacattttt 720
243 agttttatgg ttaagggatc ataaaaaatt ctgcgtatta agttgagtga cgcgagtg 780

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244 acttattact caaacttaac agcgtttgat ccattcacat cgggcccata gcagcccata 840
245 tccagcaacg caccacggtg actgacacgc ggggcccaac gaggtggcgc cgtggctggt 900
246 ggggcgggtg agtcacgccc tcggcgctgc ccccaaaagc gaaccatata ctttgcttcg 960
247 tggggccctg cccaatcgcc gcccgccacg tgccccttcc cggataccgc ctccctccaa 1020
248 acccgctccc tctccctctc cctcctccta caatggccgc agcagcagca gccagcagca 1080
249 gacgcagaga ccagtagctt tcgcagaggc ggcagccacc accgcctcct cctcctcctc 1140
250 ctcacccgac ggtgtgcaac caagcgatg 1169
253 <210> SEQ ID NO: 9
254 <211> LENGTH: 1830
255 <212> TYPE: DNA
256 <213> ORGANISM: Tagetes erecta
258 <220> FEATURE:
259 <221> NAME/KEY: CDS
260 <222> LOCATION: (141)..(1688)
261 <223> OTHER INFORMATION: coding for epsilon-cyclase
264 <400> SEQUENCE: 9
265 ggcacgaggc aaagcaaagg ttgtttgttg ttgttgttga gagacactcc aatccaaaca 60
266 gatacaaggc gtgactggat atttctctct cgttcctaac aacagcaacg aagaagaaaa 120
267 agaatcatta ctaacaatca atg agt atg aga gct gga cac atg acg gca aca 173
268 Met Ser Met Arg Ala Gly His Met Thr Ala Thr
269 1 5 10
270 atg gcg gct ttt aca tgc cct agg ttt atg act agc atc aga tac acg 221
271 Met Ala Ala Phe Thr Cys Pro Arg Phe Met Thr Ser Ile Arg Tyr Thr
272 15 20 25
273 aag caa att aag tgc aac gct gct aaa agc cag cta gtc gtt aaa caa 269
274 Lys Gln Ile Lys Cys Asn Ala Ala Lys Ser Gln Leu Val Val Lys Gln
275 30 35 40
276 gag att gag gag gaa gaa gat tat gtg aaa gcc ggt gga tcg gag ctg 317
277 Glu Ile Glu Glu Glu Glu Asp Tyr Val Lys Ala Gly Gly Ser Glu Leu
278 45 50 55
279 ctt ttt gtt caa atg caa cag aat aag tcc atg gat gca cag tct agc 365
280 Leu Phe Val Gln Met Gln Gln Asn Lys Ser Met Asp Ala Gln Ser Ser
281 60 65 70 75
282 cta tcc caa aag ctc cca agg gta cca ata gga gga gga gga gac agt 413
283 Leu Ser Gln Lys Leu Pro Arg Val Pro Ile Gly Gly Gly Gly Asp Ser
284 80 85 90
285 aac tgt ata ctg gat ttg gtt gta att ggt tgt ggt cct gct ggc ctt 461
286 Asn Cys Ile Leu Asp Leu Val Val Ile Gly Cys Gly Pro Ala Gly Leu
287 95 100 105
288 gct ctt gct gga gaa tca gcc aag cta ggc ttg aat gtc gca ctt atc 509
289 Ala Leu Ala Gly Glu Ser Ala Lys Leu Gly Leu Asn Val Ala Leu Ile
290 110 115 120
291 ggc cct gat ctt cct ttt aca aat aac tat ggt gtt tgg gag gat gaa 557
292 Gly Pro Asp Leu Pro Phe Thr Asn Asn Tyr Gly Val Trp Glu Asp Glu
293 125 130 135
294 ttt ata ggt ctt gga ctt gag ggc tgt att gaa cat gtt tgg cga gat 605
295 Phe Ile Gly Leu Gly Leu Gly Cys Ile Glu His Val Trp Arg Asp
296 140 145 150 155
297 act gta gta tat ctt gat gac aac gat ccc att ctc ata ggt cgt gcc 653

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RAW SEQUENCE LISTING ERROR SUMMARY
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Input Set : A:\Sequence Listing - Docket No 13173-00002 US.txt
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:18; Xaa Pos. 4
Seq#:21; Xaa Pos. 2
Seq#:22; Xaa Pos. 4,11
Seq#:39; N Pos. 7,8,9,10,11,1020,1180,1181,1330
Seq#:39; Xaa Pos. 2,3,4,340
Seq#:40; Xaa Pos. 2,3,4,340

VERIFICATION SUMMARY

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Output Set: N:\CRF4\02262005\J524648.raw

L:13 M:270 C: Current Application Number differs, Replaced Current Application No
L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:1090 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:0
L:1165 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:0
L:1185 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:0
L:2645 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39 after pos.:0
M:341 Repeated in SeqNo=39
L:2735 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:0
M:341 Repeated in SeqNo=40